

(SEQ ID NO:14), Peptide #1-14 (SEQ ID NO:16), Peptide #1-15 (SEQ ID NO:17), Peptide #1-16 (SEQ ID NO:18), Peptide #1-19 (SEQ ID NO:21), Peptide #1-20 (SEQ ID NO:22), Peptide #1-21 (SEQ ID NO:23), Peptide #1-22 (SEQ ID NO:24), Peptide #1-23 (SEQ ID NO:25), Peptide #1-24 (SEQ ID NO:26), Peptide #1-25 (SEQ ID NO:27), Peptide #1-26 (SEQ ID NO:28), Peptide #1-27 (SEQ ID NO:29), Peptide #1-30 (SEQ ID NO:32), Peptide #1-31 (SEQ ID NO:33), Peptide #1-32 (SEQ ID NO:34), Peptide #1-33 (SEQ ID NO:35), and Peptide #1-34 (SEQ ID NO:36) shown in Fig. 4, or a part of said amino acid sequence.

2. (Amended) A peptide comprising at least one T-cell epitope of Japanese cypress pollen allergen Cha o 2 and [having] consisting of an amino acid sequence selected from the group consisting of Peptide #2-5 (SEQ ID NO:42), Peptide #2-7 (SEQ ID NO:44), Peptide #2-8 (SEQ ID NO:45), Peptide #2-9 (SEQ ID NO:46), Peptide #2-10 (SEQ ID NO:47), Peptide #2-11 (SEQ ID NO:48), Peptide #2-12 (SEQ ID NO:49), Peptide #2-13 (SEQ ID NO:50), Peptide #2-14 (SEQ ID NO:51), Peptide #2-15 (SEQ ID NO:52), Peptide #2-16 (SEQ ID NO:53), Peptide #2-17 (SEQ ID NO:54), Peptide #2-18 (SEQ ID NO:55), Peptide #2-19 (SEQ ID NO:56), Peptide #2-20 (SEQ ID NO:57), Peptide #2-21 (SEQ ID NO:58), Peptide #2-22 (SEQ ID NO:59), Peptide #2-23 (SEQ ID NO:60), Peptide #2-24 (SEQ ID NO:61), Peptide #2-25 (SEQ ID NO:62), Peptide #2-26 (SEQ ID NO:63), Peptide #2-27 (SEQ ID NO:64), Peptide #2-30 (SEQ ID NO:67), Peptide #2-31 (SEQ ID NO:68), Peptide #2-32 (SEQ ID NO:69), Peptide #2-33 (SEQ ID NO:70),

Peptide #2-34 (SEQ ID NO:71), Peptide #2-35 (SEQ ID NO:72),  
Peptide #2-36 (SEQ ID NO:73), Peptide #2-37 (SEQ ID NO:74),  
Peptide #2-38 (SEQ ID NO:75), Peptide #2-40 (SEQ ID NO:77),  
Peptide #2-41 (SEQ ID NO:78), Peptide #2-42 (SEQ ID NO:79),  
Peptide #2-43 (SEQ ID NO:80) shown in Fig. 8, or a part of said  
amino acid sequence.

30B  
E7  
B3  
/ 5. (Amended) A composition for peptide-based  
immunotherapy of pollinosis caused by tree pollen[s] in  
springtime, comprising the peptide of claim 1, as an [effective]  
active ingredient, and a pharmaceutically acceptable diluent or  
carrier.

B4  
7. (Amended) A method for treating or preventing  
pollinosis caused by tree pollen[s] in springtime, comprising  
administering the peptide of claim 1 to an individual susceptible  
to said pollinosis.

5  
B  
13. (Amended) A composition for peptide-based  
immunotherapy of pollinosis caused by tree pollen[s] in  
springtime, comprising the peptide of claim 2 as an [effective]  
active ingredient, and a pharmaceutically acceptable diluent or  
carrier.

14. (Amended) A method for treating or preventing  
pollinosis caused by tree pollens in springtime, comprising

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administering the peptide of claim 2 to an individual susceptible to said pollinosis.

Add new claims 17-28:

--17. A method of diagnosis comprising:

(a) providing a population of cells from an individual, the population of cells comprising lymphocytes;

(b) contacting said population of cells with a peptide of claim 1; and

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(c) determining responsiveness of the lymphocytes to the peptide as an indication that the individual is susceptible to pollinosis caused by Japanese cypress pollen allergens or by tree pollen allergens that are immunologically cross-reactive with Japanese cypress pollen allergens.

18. An analog peptide consisting of a sequence identical to that of a wild-type peptide of claim 1, except for substitutions in one or more amino acid residues that mediate an interaction with a T cell receptor or that mediate an interaction with a major histocompatibility complex (MHC) class II molecule, wherein the analog peptide stimulates a T cell that is responsive to the wild-type peptide.

19. The analog peptide of claim 18, wherein the analog peptide stimulates the T cell to produce a greater amount of interferon- $\gamma$  than stimulated by the wild-type peptide.

20. A process for making an analog peptide, comprising synthesizing an analog peptide consisting of a sequence identical to a peptide of claim 1, except for substitution of one or more amino acid residues that mediate an interaction with a T cell receptor or that mediate an interaction with a major histocompatibility complex (MHC) class II molecule, wherein the analog peptide stimulates a T cell that is responsive to the peptide of claim 1.

21. A method of diagnosis comprising:

- (a) providing a population of cells from an individual, the population of cells comprising lymphocytes;
- (b) contacting the population of cells with the peptide of claim 2; and
- (c) determining responsiveness of the lymphocytes to the peptide as an indication that the individual is susceptible to pollinosis caused by Japanese cypress pollen allergens or by tree pollen allergens that are immunologically cross-reactive with Japanese cypress pollen allergens.

22. An analog peptide consisting of a sequence identical to a wild-type peptide of claim 2, except for substitution of one or more amino acid residues that mediate an interaction with a T cell receptor or that mediate an interaction with a major histocompatibility complex (MHC) class II molecule, wherein the analog peptide stimulates a T cell that is responsive to the wild-type peptide.

23. The analog peptide of claim 22, wherein the analog peptide stimulates the T cell to produce a greater amount of interferon- $\gamma$  than stimulated by the wild-type peptide.

24. A process for making an analog peptide, comprising synthesizing an analog peptide consisting of a sequence identical to a peptide of claim 2, except for substitution of one or more amino acid residues that mediate an interaction with a T cell receptor or that mediate an interaction with a major histocompatibility complex (MHC) class II molecule, wherein the analog peptide stimulates a T cell that is responsive to the peptide of claim 2.

25. A modified peptide consisting of the sequence of a wild-type peptide of claim 1 modified by addition or deletion of one or more amino acid residues, wherein the modified peptide is recognized by only those T cells which recognize the peptide of claim 1.

26. The modified peptide of claim 25, wherein said modification enhances solubility, stability, or both solubility and stability, compared to the wild-type peptide.

27. A modified peptide consisting of the sequence of a wild-type peptide of claim 2 modified by addition or deletion of one or more amino acid residues, wherein the modified peptide is